New Course Request

Indiana University

South Bend Campus

Check Appropriate Boxes: Undergraduate credit [X] Graduate credit [ ] Professional credit [ ]

1. School/Division Nursing & Health Professions

2. Academic Subject Code AHLT

3. Course Number 404 (must be cleared with University Enrollment Services)

4. Instructor Medical Imaging Faculty

5. Course Title Sectional Imaging Anatomy-Ultrasound, Computed Tomography, Magnetic Resonance Imaging

Recommended Abbreviation (Optional) (Limited to 32 Characters including spaces)

6. First time this course is to be offered (Semester/Year): Fall 2009

7. Credit Hours: Fixed at 3 or Variable from ________ to ________

8. Is this course to be graded S-F (only)? Yes [ ] No [X]

9. Is variable title approval being requested? Yes [ ] No [X]

10. Course description (not to exceed 50 words) for Bulletin publication: Sectional Imaging Anatomy: An in-depth study of sectional anatomy pertinent to ultrasound, computed tomography, and magnetic resonance imaging. Standard transverse, parasagittal, and coronal planes are included, utilizing images from all three imaging modalities. A discussion of technique, artifacts, and pathology-related alterations of cross-sectional anatomic appearances is included.

11. Lecture Contact Hours: Fixed at 3 or Variable from ________ to ________

12. Non-Lecture Contact Hours: Fixed at ________ or Variable from ________ to ________

13. Estimated enrollment: 15 of which 0 percent are expected to be graduate students.

14. Frequency of scheduling: Fall terms Will this course be required for majors? Yes

15. Justification for new course: To allow BS/MSIT majors to complete didactic degree requirements

16. Are the necessary reading materials currently available in the appropriate library? ________

17. Please append a complete outline of the proposed course, and indicate instructor (if known), textbooks, and other materials. Attached

18. If this course overlaps with existing courses, please explain with which courses it overlaps and whether this overlap is necessary, desirable, or unimportant.

19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of the new course with existing courses or areas of strong concern, with instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions thus consulted.

Submitted by: [Signature]

Date 4-15-09

Department Chairman/Division Director

Dean of Graduate School (when required)

Approved by: [Signature]

Date 4/17/09

Dean

Chancellor/Vice-President

University Enrollment Services

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing, and the remaining four copies and attachments to the Campus Chancellor or Vice-President.
Course: AHLT-R 404 Sectional Imaging Anatomy – MRI, CT, and US (Ultrasound)  
Professor: Jim H. Howard, R.T. (R), MS.Ed., Clinical Assistant Professor  
Office: Northside Hall, Room 405  
Office Hours: By Appointment or following class  
Telephone: Office: (574) 520-5569  
Email: jhoward@iusb.edu  
Prerequisite: As stated in the course description  
Co-requisites: All courses required: R404 and R405  
Textbooks: Sectional Anatomy for Imaging Professionals (2nd ed)  
Lorrie L. Kelly and Connie M. Petersen  
Workbook to Accompany Text  
Suggested: A medical dictionary (student’s choice) must be current.

CLASSES BEGIN: August 31, 2009  
Holidays/Breaks: Labor Day, September 7, 2009  
Thanksgiving Break, November 25-26, 2009  
Classes End: December 12, 2009  
Final Exam: December XX, 2009

Introduction  
The following is a concise presentation of the above-named course. The student should retain this document for the duration of the program.

Course Description  
Sectional Imaging Anatomy: An in-depth study of sectional anatomy pertinent to ultrasound, computed tomography, and magnetic resonance imaging. Standard transverse, parasagittal, and coronal planes are included, utilizing images from all three imaging modalities. A discussion of technique, artifacts, and pathology-related alterations of cross-sectional anatomic appearances is included.

Grading Procedure  
Each examination will be given equal value in the consideration of your final grade and will make up 75% of that grade. The final exam will constitute the remaining 25%. All workbook grades will be combined at the end of the session to equal one exam grade. Your workbook will be collected periodically – unannounced – and given an overview grade at least 4 times.

The grading scale will be as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A+</td>
<td>100</td>
</tr>
<tr>
<td>A</td>
<td>90 - 93</td>
</tr>
<tr>
<td>B+</td>
<td>89 - 84</td>
</tr>
<tr>
<td>B</td>
<td>83 - 74</td>
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<tr>
<td>C+</td>
<td>73 - 64</td>
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<tr>
<td>C</td>
<td>92 - 72</td>
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<tr>
<td>D+</td>
<td>65 - 66</td>
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<tr>
<td>D</td>
<td>64 - 0</td>
</tr>
</tbody>
</table>

PLEASE NOTE: A grade of less than C in this course will require the student to repeat the course during the next semester in which it is offered. If the student does not successfully complete this course the second time with a grade of C or better, they will be dismissed from the program. (See June 2008 Revision Radiography Student Handbook, page 22)
Withdrawal Policy:
Any other policies/procedures not addressed in this syllabus can be found in the IU South Bend Radiography program Student Handbook, page 23.

<table>
<thead>
<tr>
<th>Withdrawal Dates:</th>
<th>Automatic “W” Withdrawal Deadline</th>
<th>September 7-26</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Withdrawal with Grade of “W” or “F”</td>
<td>September 28-November 6</td>
</tr>
<tr>
<td></td>
<td>Last Day to Withdraw (5:00 p.m.)</td>
<td>November 6</td>
</tr>
</tbody>
</table>

Objectives:
The student will:

1. Define common terms used in the study of sectional anatomy
2. Name the common structures of each system as demonstrated on CT, MRI, Ultrasound and Vascular imaging
3. Identify each section as required on the diagrams presented in the workbook
4. Identify each section as required on CT, MRI, Ultrasound and Vascular imaging

See the objectives at the beginning of each chapter covered in course for specific objectives.

Methodology:
- **Lectures:** lectures will be designed around the subject matter assigned. It is intended to amplify and clarify assigned material. **The student shall have already read the text on the material to be covered PRIOR TO class.**

- **Class Discussion:** good communication is of utmost importance in the learning process. We will stop and discuss any topic that needs to be readdressed for clarification at any time. Priority will be given to assigned material for that day.

- **A.V. Material:** it is imperative that a clear understanding of material is given. To aid in their process slides, DVD’s, whiteboard, transparencies, PowerPoint, and other material will used to enhance the learning process where needed. The use of web sites and computer-assisted learning will take place.

- **Individual Advising Sessions:** There is an open door policy. If you need assistance on anything, take advantage of this opportunity - please make an appointment to meet with me.

- **Testing:** each exam and quiz will be comprehensive. They may consist of short answers, true and false, essay, diagrams, matching and/or multiple choices. Because this is an imaging course, the majority of the exam will be labeling of images.

- **Lab Procedures:** No formal lab will be conducted; however, you will need to spend time on the internet using CD’s and images as provided.

- **Individual Presentation:** Classroom discussion is expected and encouraged at all times. Your grade could be indirectly affected by poor classroom participation.

Accommodations:
If you require an accommodation, academic adjustment, or special service due to a disability, please inform the professor.

Attendance:
Attendance is mandatory and part of your semester grade. Those students absent from more than two classes will have their course grade lowered by one letter grade. Cases of documented absences due to health/personal reasons will be reviewed by the professor. **It is the student’s responsibility to contact the professor for make-up material following an absence.**

Tardy Policy:
Students are expected to be punctual for class and clinical experience. A student will be considered tardy if they have not arrived within four (4) minutes of their scheduled start time.
Students are allowed two (2) tardies for each fall/spring semester. Any tardies beyond this total during the fall/spring semester will result in the assignment of clinical demerits with the possible probation, suspension or dismissal from the program. A repetitive pattern of tardies over successive fall/spring semesters or exceeding a total of six (6) for the academic year will result in the issuance of a Student Violation form with possible probation, suspension or dismissal from the program.

All time missed due to tardies, must be made up within five (5) clinical days of the occurrence. Failure to make up the time missed within the specified time period will result in the issuance of a student violation along with the possible probation, suspension or dismissal from the program.

**CELL PHONE USAGE**

Cell phones are to be adjusted to a non-audio mode prior to the start of class. Students who neglect to perform this action will be subject to disciplinary action as stated in the Indiana University South Bend Radiography Student Handbook (June 2008 revision), page 23, Item #11: Failure to Disengage the Audio Mode of a Cell Phone during Didactic Classes. In the event that a student has a valid need to be contacted during class, the instructor should be notified prior to class.

**Learning Process:**

This is the responsibility of both the professor and the student. It is the responsibility of the professor to present material in a concise manner utilizing all educational resources available. The student must first be familiar with the material as assigned (pre-class preparation), record the information the professor presents, relate it to the text, and combine them into an easily learned pattern. Once the pattern is set, the student reviews and studies until the material has been learned.

Another responsibility of the student is to maintain a prompt and consistent attendance record. Each and every hour of class is extremely important. Your learning process will be severely impaired if you are not there to acquire the notes from that class. When you do miss a class, it is your responsibility to find out what took place in that class and to obtain notes and assignments.

Remember, the learning process requires the cooperation of all of us. Help me to do my portion by asking questions if you do not understand the material. The only way I can tell if something is confusing or needs additional explanation is to hear from you. Use the open door policy to its fullest. I am always willing and most of the time available to help you understand material. If I am busy with someone else or cannot meet with you at that time, we will set up an appointment for a later date.

**OUTLINE:**

(For an in depth outline, consult the first page of each chapter of the text)

I. Introduction to Sectional Anatomy (Chapter 1)
   A. Anatomical Positions and Planes
   B. Terminology and Landmarks
   C. Body Cavities
   D. Abdominal and Pelvic Divisions
   E. Image Display

II. Cranium and Facial Bones (Chapter 2)
   A. Cranium
   B. Facial Bones
   C. TMJ
   D. Paranasal Sinuses
   E. Orbits

III. Brain (Chapter 3)
   A. Meninges
   B. Ventricular System
   C. Cerebrum
   D. Diencphalon
   E. Limbic System
   F. Brainstem
   G. Cerebellum
   H. Cerebral Vascular System
   I. Cranial Nerves
IV. Spine (Chapter 4)
   A. Vertebbral Column
   B. Ligaments
   C. Muscles
   D. Spinal Cord
   E. Plexuses
   F. Vasculature

V. Neck (Chapter 5)
   A. Organs
   B. Muscles
   C. Vascular Structures

VI. Thorax (Chapter 6)
   A. Bony Thorax
   B. Lungs
   C. Pleural Cavities
   D. Bronchi
   E. Mediastinum
   F. Lymphatic System
   G. Heart and Vasculature
   H. Great Vessels
   I. Coronary Circulation
   J. Azygos Venous System
   K. Muscles
   L. Breast

VII. Abdomen (Chapter 7)
   A. Abdominal Cavity
   B. Liver
   C. Gallbladder and Biliary System
   D. Pancreas
   E. Spleen
   F. Adrenal Glands
   G. Urinary System
   H. Stomach
   I. Intestines
   J. Abdominal Aorta and Branches
   K. Inferior Vena Cava and Tributaries
   L. Lymph Nodes
   M. Muscles of the Abdominal Wall

VIII. Pelvis (Chapter 8)
   A. Bony Pelvis
   B. Muscles
   C. Viscera
   D. Vasculature
   E. Lymph Nodes

IX. Upper Extremity (Chapter 9)
   A. Shoulder
   B. Elbow
   C. Wrist and Hand
   D. Neurovasculature

X. Lower Extremity (Chapter 10)
   A. Hip
   B. Knee and Lower Leg
   C. Ankle and Foot
   D. Neurovasculature